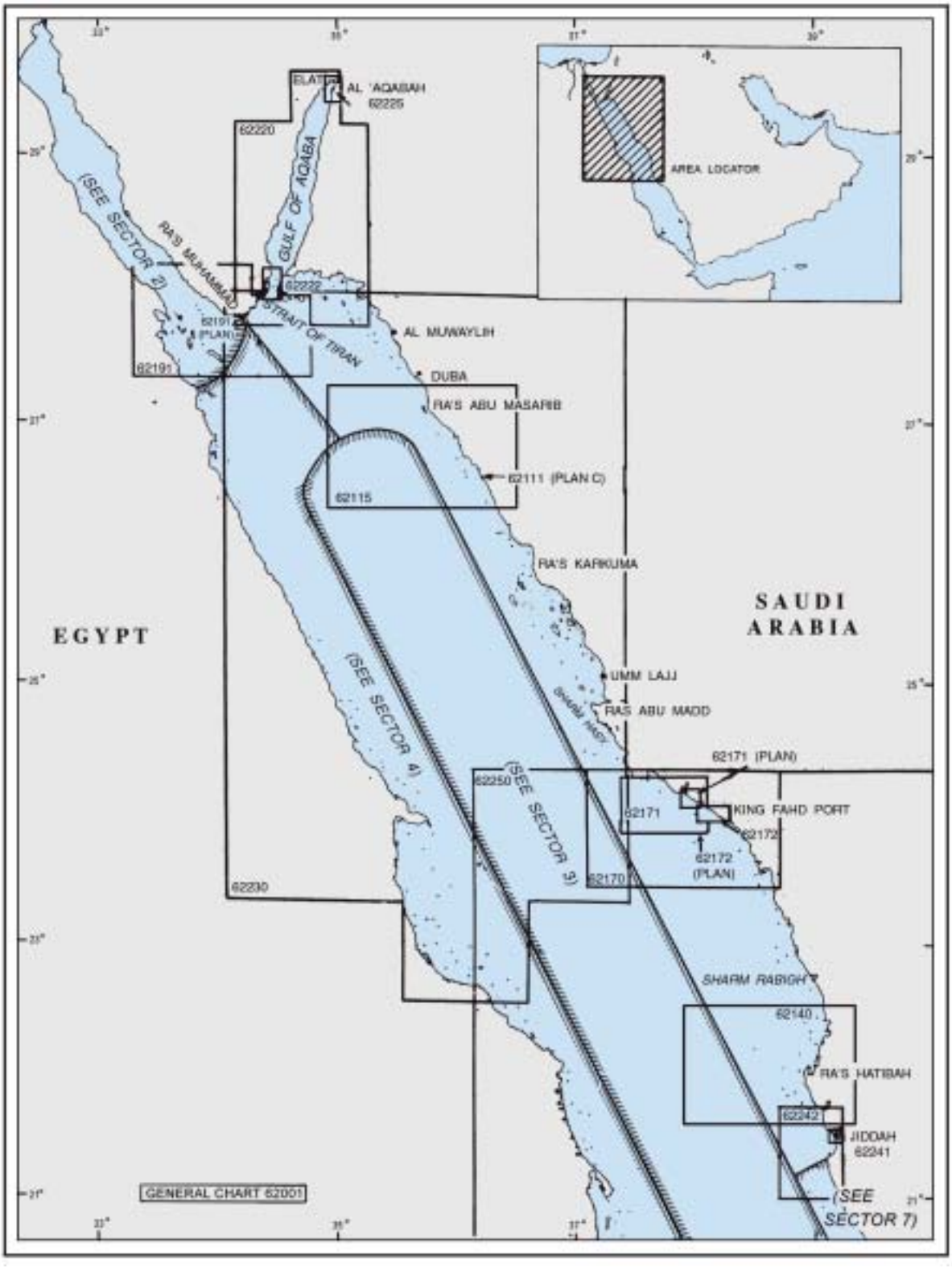
Click on "See Sector" to be hotlinked to that Sector.



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR **6** — CHART INFORMATION

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SECTOR 6

THE RED SEA—RAS MUHAMMAD TO JIDDAH

Plan.—This sector describes the Gulf of Aqaba followed by the E side of the Red Sea S to Jiddah. The general sequence of description is from N to S.

General Remarks

6.1 From the E entrance of the Gulf of Aqaba to **Yanbu** (24˚05'N., 38˚03'E.), the coast is 15.2 to 30m high and generally has no beach; the inlets are more or less coves.

Below Yanbu, the coast is sandier and lower, and the inlets are more or less lagoons. These inlets form convenient stopping places for trading vessels proceeding up and down the Red Sea.

From Yanbu to Jiddah, the coast is composed of sandbanks with coral bases and is paralleled by off-lying reefs, which are in some places connected to shore. The entrances of the inlets in this locality are very difficult to distinguish.

The reefs fronting the coast between the E entrance of the Gulf of Aqaba and Jiddah extend in ridges, usually with deep water near them, or lie on extensive banks. They rarely exceed 3 miles in length, and there is no heavy surf on most of them under any conditions of wind or weather.

The high mountains backing the Arabian coast from the head of the Gulf of Aqaba to Bab al Mandeb lie from 12 to 60 miles inland and are conspicuous. They present peaked summits, 1,524 to 2,438m high, and fall abruptly on their seaward side. Other lower ranges exist, which gradually decrease in height as they approach the coast.

In clear weather, the mountains backing the Arabian coast can be seen from 40 to 70 miles, the most noticeable being **Jabal al Muwaylih** (27˚37'N., 35˚45'E.), **Jabal Radwa** (24˚36'N., 38˚16'E.), and Jabal Subh, about 88 miles farther SSE.

Jabal Ghazuan, about 60 miles E of Makkah, is about 4,267m high, and is reported to be the highest mountain in Arabia.

The higher mountains rise above hills of rock, while nearer the coast many hills are of limestone; those nearest the sea are mainly of light-colored sandstone, containing large quantities of shells and coral.

A low area of irregular width extends from the base of the hills to the coast between the head of the Gulf of Aqaba to Jiddah. It is generally deserted and barren, with a few cultivated spots.

The coast for a distance of about 65 miles SE of the Gulf of Aqaba is backed by mountains lying from 10 to 17 miles inland and attaining an elevation of 2,279m in **Jabal Dabbah** (27˚50'N., 35˚45'E.).

A mountain range extends about 13 miles NW from Jabal al Muwaylih, which is at the S end of the range. This peak, along with Jabal Shar, about 3 miles NW, is conspicuous.

This range consists of very sharp ridges, which show as peaks on some bearings. They have an irregular columnar appearance with chasms between them when seen from S, while from the N, the peaks overlap and the range appears as a narrow ridge.

Ras Muhammad from S

Jabal Liban is located about 74 miles SE of Jabal al Muwaylih and about 10 miles inland. Two small peaks, near the center of this mountain, assist in distinguishing it from seaward. This mountain lies near the NW end of a range which extends about 63 miles SE; Jabal ar Ral (Jal) is conspicuous and isolated with a broad summit near the S end of this range.

Winds—Weather.—Winds from the N incline to the land and sea breezes prevail throughout the year. During March and April, the land and sea breezes are more frequent on this side of the Red Sea than the W side. Land squalls in the S part occur in April and May. From May to July, when these squalls are experienced on the coast of Sudan, there are heavy dews and thick hazy weather on the Arabian coast.

6.2 **Ras Muhammad** (27˚44'N., 34˚15'E.) is an abrupt, broken cliff with a flat top, 27m high, descending to a low plain, a little N of the cape.

Black Hill, on the peninsula about 2 miles NNW of Ras Muhammad, is 58m high, black, rounded, and fairly conspicuous. There is a flat, sand-colored hill, of nearly the same height, SE. From a distance these hills appear as islands.

Ras Muhammad should be approached with care at night; the white cliffs and the land are not easily distinguished. It is steep-to, with no off-lying dangers on its E and S sides. A

stranded wreck lies on a reef close S of Ras Muhammad. Ras Muhammad is reported to give a good radar return. The point is marked by a light and a racon.

Gulf of Aqaba

6.3 The shores of the **Gulf of Aqaba** (27˚59'N., 34˚27'E.) are closely bounded by mountainous ridges, which in many places rise from the plain like a wall.

A radar station has been established close W of **Nabq** (28˚05'N., 34˚25'E.) to assist traffic transiting the Strait of Tiran.

When vessels nearing the strait have reached the position 27˚56.5'N, 34˚25.1'E or 28˚01.2'N, 34˚27.5'E, they should contact the station for local navigational information. The radar station, call sign "Salam," may be contacted on 500 and 2182 kHz or on VHF channel 13 or 16. This station was reported to be inoperative.

Winds—Weather.—During the greater part of the year NNE winds prevail and sometimes blow with considerable force. In April and May, they are generally more moderate, with an occasional change to S winds. In the winter months, S winds sometimes come up suddenly and may blow for a day.

At the end of August, N winds, light to moderate in force, have been experienced.

The coast between Ras Muhammad and Ras Nasrani, about 16 miles NE, is high and fringed by a narrow white reef.

This reef, which extends about 31 miles inside the Gulf of Aqaba, is usually covered and is marked on its outer edge by surf.

The water outside the reef is of a dark blue color because of its great depth. This reef is dangerous to approach, even by small boats.

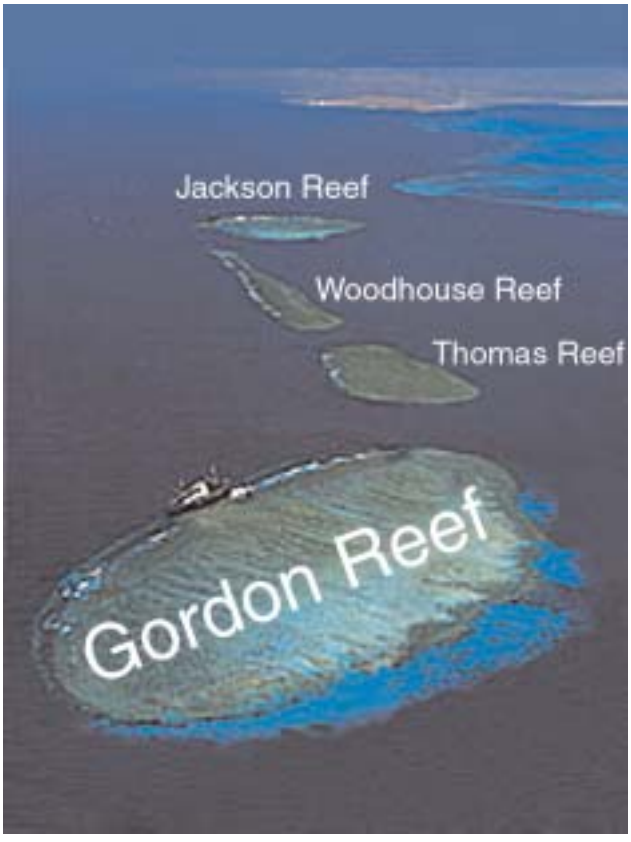
Sharm el Sheikh (Sharm Ash Shaykh) (Sharm al Shaikh) (27˚51'N., 34˚17'E.) and Sharm el Moiya are separated from each other by a rocky tongue of land, on which a large white hospital is located, about 7 miles NNE of Ras Muhammad. Sharm el Sheikh, the W bay, is free from dangers.

A small concrete jetty is located on the SE shore of Sharm el Sheikh; boat landings are situated along the NE face of this facility. Three small craft mooring buoys are located near the head of the bay. This port is mainly used by yachts and tourist vessels.

Berthing is available during daylight hours only. The largest vessel handled was 30,000 dwt, with a length of 250m and a draft of 9m. Suez Odense Marine operates a floating dock, with a length of 144m and a width of 22m.

Berth	Length	Max. draft
No. 1	25m	7.5m
No. 2	300m	8.0m
No. 3	50m	8.0m
No. 4	49m	7.5m

Depths of 100m are found for about 0.4 mile inside the entrance, but from then on the depths shoal rapidly.



Strait of Tiran from S

Anchorage can be taken, in about 25m, sand, in a position about 0.1 mile off the NE shore of Sharm el-Sheikh. Caution is necessary when anchoring, as the bank drops abruptly into deep water.

Sharm el Moiya, the E bay, is about 0.2 mile wide in its entrance, but it is so obstructed by coral patches that a vessel drawing more than 3m can only make its way through them with great difficulty. A light is shown from **Ras Umm Sid** (27˚51'N., 34˚19'E.), just E of Sharm el Moiya.

6.4 The **Strait of Tiran** (28˚00'N., 34˚27'E.) is obstructed by a chain of reefs. These reefs, with several large drying boulders on them, are awash at LW during the summer.

An IMO-approved Traffic Separation Scheme, best seen on the chart, exists in the Strait of Tiran. Northbound traffic passes E of Gordon Reef and the reefs extending to the NE of Gordon Reef; southbound traffic passes W of these reefs.

A Vessel Traffic Service Station has been established to provide the following services:

1. Ensure safety of navigation within the Traffic Separation Scheme of the Gulf of Aqaba.
2. Monitor passing vessels outside the traffic lane 15l miles N and S of the station.
3. Provide navigation assistance and advice to the passing vessels, if required, on VHF channel 16.

Gordon Reef (27˚59'N., 34˚27'E.) is the SW reef of the group. Thomas Reef, Woodhouse Reef, and Jackson Reef lie within 1.5 miles NE of Gordon Reef, and are separated by deep channels, 0.1 to 0.15 mile wide. These channels, however, should not be used, as a dangerous current often sets across them.

Caution.—Stranded wrecks are located on the N and S portions of Jackson Reef. These wrecks should not be mistaken for vessels underway.

6.5 Jazirat Tiran (27˚56'N., 34˚33'E.) rises to a height of 524m close within its SW point. The remainder of the island is a low sandy plain, with some hills in places.

The NW coast of Jazirat Tiran between Chisholm Point, about 2 miles WNW of the above 524m peak, and Johnson Point, the NW extremity of the island, is fringed by reefs and backed by low, undercut, coral cliffs.

Two conspicuous hills, 94m and 47m high, lie about 0.5 mile apart, about midway between these two points.

Johnson Point, consisting of sand and dead coral, is low and flat. Two small sandy beaches S of Johnson Point are conspicuous when seen from S and generally afford good landing.

Enterprise Passage (27˚59'N., 34˚27'E.), the channel to the W, lies between Gordon Reef and the coastal reef NE of Ras Nasrani. This passage presents no difficulty as it is deep and clear, and the reefs on either side are steep-to.

Vessels should enter and leave Enterprise Passage during daylight only, except when there is ample moonlight. Tidal currents in the S approach to the Gulf of Aqaba are uncertain and sometimes attain a considerable velocity. Caution is necessary when approaching at night.

If navigating Enterprise Passage at night, it has been reported that visual bearings of the lights marking the passage are preferable to radar ranges of the nearby coast. The light structures in Enterprise Passage are difficult to distinguish during the day.

A N set of 3.5 knots was experienced many years ago, in Enterprise Passage about 1 hour after HW at Jazirat Tiran, with a 4 to 6 force S wind. A S set of 1 knot was experienced many years ago, in the passage about 2 hours 30 minutes after HW at Jazirat Tiran, with a NNE wind of force 5.

The wind in Enterprise Passage and Grafton Passage is very strong and the swell heavy at times, causing considerable tide rips.

A local magnetic anomaly lies along the E shore of the gulf.

6.6 Al Gharqanah (28˚07'N., 34˚27'E.), a promontory about 2.5 miles NE of Nabq, may lie up to about 1 mile W of its charted position.

The W side of the Gulf of Aquaba between Nabq and Khalij al Qarah, about 24 miles N, is fringed by a narrow white reef.

Khalij al Qarah (28˚28'N., 34˚30'E.) lies on the S side of a low and sandy promontory, from which a low, sandy, barren spit extends about 1 mile S and then 1 mile W.

A drying reef extends about 0.4 mile SSW from the SE extremity of this spit. The bay, entered between the W extremity of this spit and the coast about 0.7 mile W, has general depths of 7.3 to 24m.

A 4.9m coral patch lies about 0.2 mile W of the extremity of the spit. Shoals extend about 91m W and NW, respectively, from the extremity of the spit.

To the N of this spit is an inlet, which dries a short distance inland. A shoa,l with a depth of 4.9m, lies about 0.2 mile W of the sand spit. A light, with a racon, is shown from the coast about 1 mile N of the S point of the sand spit.

A cairn stands on the extremity of the sand spit and a single palm, reported to be conspicuous, stands on the coast N of the spit.

Anchorage.—Anchorage can be taken in Khalij al Qarah, in 29m, sand and coral, with the W extremity of the sand spit bearing 030˚, distant 0.35 mile. This anchorage is sheltered from N and E.

Ras Abu Qalum (28˚38'N., 34˚34'E.) is a sandy promontory, fringed by reefs on its N side.

El Habiq (28˚52'N., 34˚39'E.), about 14.5 miles N of Ras Abu Qalum, is a low sandy point, with some stunted trees. A flat plain of sand and stones rises gradually within this point to the base of the mountains.

Caution.—An area just S of El Habiq has been established as a restricted area. Vessels over 500 gross tons, or carrying dangerous or toxic cargos, should avoid entering this area. There are several areas along the Sinai Peninsula, best seen on chart, that are to be avoided in order to protect the environment. These areas have been adopted by the IMO.

6.7 Nuweiba el Muzeina (28˚58'N., 34˚39'E.) lies about 6.25 miles N of El Habiq. There is a quay for general cargo and ro-ro vessels, which has a length of 120m and a depth of 8m. There are also two passenger vessel berths, one 92m long and one 42m long, both with 8m of depth.

Pilotage.—Pilotage is compulsory and is available 24 hours. The port is private and requires permission from the Maritime Transport in Alexandria before entering.

El Qarnus (28˚59'N., 34˚41'E.), close NE of Nuweiba el Muzeina, is covered with low bushes and sandhills. A fort stands about 3 miles N of El Qarnus, but the anchorage is open to the prevailing winds.

Ras Suwayhil as Saghir (28˚53'N., 34˚49'E.), on the E side of the gulf, is a sandy point fringed by rocks. Temporary anchorage can be taken, in 11m, S of Bir Marshah, close SE of the point, sheltered from N winds.

Humaydah (29˚13'N., 34˚54'E.), a 17m high islet, lies in the middle of the entrance of a small bay, about 21 miles NNE of Ras Suwayhil as Saghir. The N part of this bay is foul; the N end of the island is connected to the coast by a reef, partly above water.

The island is difficult to distinguish and should not be confused with a table-topped point about 3 miles farther N. The island has been reported to be gray in color and to contrast with the pink cliffs in the background.

Al Humaydah, a village, is located in the SE part of the bay. Some prominent tanks and a radio mast stand about 6 miles N of Humaydah.

Anchorage.—Good anchorage, sheltered from all winds, can be taken between Humaydah and the coast to the SE. Vessels of moderate size can take anchorage, in 55m, sand and

coral, with the summit of the island bearing 322° and the S entrance point of the bay bearing 225°.

6.8 **Geziret Firon** (29°28'N., 34°52'E.), lying about 0.1 mile offshore, is fringed by a reef. There are several towers and ruins on the island.

Anchorage.—Anchorage can be taken off the extremities of the island according to the wind. With strong S winds, neither is recommended as, except for small vessels, there is little shelter.

Good anchorage, for vessels of moderate size, is in 37m, coral, with the N end of the island bearing 197°, distant 0.15 mile; or in 33m, sand, with the S end of the island bearing 008°, distant 0.15 mile.

Large vessels may anchor, in 35m, coral, with the N end of the island bearing 213°, distant 0.3 mile.

The shore at the head of the Gulf of Aqaba is very low, being the end of Wadi al Arabah, which is sandy with high mountains on either side.

Elat (Eilat) (Elath) (29°33'N., 34°57'E.)

World Port Index No. 48076

6.9 Elat, in Israel, is an open roadstead on the NW side of the head of the Gulf of Aqaba. Depths in the approach to Elat are deep and clear, and the only limitation in the size of vessels in the harbor is the depth alongside the wharf.

Winds—Weather.—See Al Aqabah, in paragraph 6.10, for further information.

Tides—Currents.—The mean tidal rise for the port is 0.6m, while spring tides rise 0.8m.

Depths—Limitations.—North Quay, 172m long, can accommodate vessels with a maximum draft of 5.8m.

South Quay is 528m long. It can accommodate vessels up to 70,000 dwt, with a maximum length of 300m and a maximum draft of 11.8m.

An additional cargo jetty just N of the South Quay is 200m long and can accomodate vessels up to 6m draft.

Katza Oil Terminal consists of North Oil Jetty and South Oil Jetty. North Oil Jetty, which has a T-head, can accommodate a vessel up to 125,000 dwt, with a maximum draft of 17.1m. South Oil Jetty can accommodate a vessel up to 500,000 dwt, with a maximum draft of 27.4m.

Aspect.—The port, which is an open roadstead, lies along the W and N shores of the Gulf of Aqaba. The major facilities devoted to seagoing vessels are located along the port's W shore.

A conspicuous hotel stands in approximate position 29°33'N, 34°58'E. Two chimneys, painted red and white in bands, stand about 1 mile SW of the hotel; a group of radio masts, 20m high and fitted with aeronautical warning lights, stands about 1 mile N of the same hotel.

A conspicuous silo stands at the S end of South Quay, with several oil tanks standing close SW of it.

A second hotel is located about 3 miles SW of the hotel mentioned above.

Pilotage.—Pilotage is compulsory, and may be ordered through the vessel's agent, or the harbormaster if the vessel is unable to make contact. The pilot boards at the following locations:

1. For tank vessels bound for Katza Oil Terminal—about 1.5 miles SSW of South Oil Jetty.
2. For cargo vessels bound for Elat—about 0.5 mile S of the silo on South Quay.

Port Control, call sign "Yamit" may be contacted on VHF channels 12, 13, 14, and 16. The harbormaster can be contacted on VHF channel 14. Vessels awaiting a pilot should anchor only in the designated areas.

Regulations.—See Pub. 160, Sailing Directions (Planning Guide) South Atlantic and Indian Ocean for details pertaining to vessels in Israeli waters.

Special regulations are in force for vessels carrying dangerous cargoes. Loaded tankers, empty tankers not gas-free, or vessels carrying dangerous cargo are permitted to enter the harbor to proceed to the berth only. Fire warps, consisting of wire pendants with an eye, are to be rigged over the bow and stern while working dangerous cargoes.

Anchorage.—Twelve numbered anchorage berths. with depths of 29 to 130m,exist off the port's N shore, and may best be seen on the chart. The berths are assigned by port control. Just W of Anchorage Berth No. 1 lies an artificial reef and fish haven; therefore, this berth is no longer used.

Directions.—The approaches to the port are free and clear of charted dangers. A set of range lights, in alignment bearing 011°58', leads to tSouth Oil Jetty.

Caution.—A restricted area, bound for Elat,which may best be seen on the chart, surrounds Katza Oil Terminal. Vessels may not enter this restricted area without permission.

Al Aqabah (29°31'N., 35°00'E.)

World Port Index No. 48090

6.10 Al Aqabah, in Jordan, is an open roadstead on the NE side of the head of the Gulf of Aqaba. Depths in the approach to the harbor are deep and clear. In the S part of the harbor, there are depths of 5.5 to 18.3m within 137m of the shore. Similar depths are located within about 0.2 mile of the shore in the N part of the harbor.

Winds—Weather.—Al Aqabah is located at the base of a geographical trench which divides Jordan; winds can funnel into this area rapidly and create hazardous conditions for vessels at anchor. However, under normal conditions, the gulf is protected by its high sides and is usually calm.

Sudden squalls, up to force 6, from between NNE and NNW occur at night, usually commencing about 2 hours after sunset.

During the winter, strong S winds blow up the gulf, sometimes attaining great force and raising a heavy sea. Under such conditions, vessels should leave the anchorage until the weather moderates. It may also be necessary for vessels to leave their berths. These winds can rise within 2 hours, but warning is usually given by a sharp fall in the barometer.

As a result of such conditions, vessels may not immobilize their main engines without prior consultation with the harbormaster.

Depths—Limitations.—The berthing facilities at Al Aqabah handle a variety of cargo types, and stretch from the

head of the gulf to the Jordan-Saudi Arabia border. The main port area offers 12 berths to vessels handling general, grain, or bulk solid commodities.

Berth No. 1 to Berth No. 6, located on the outer face of the General Cargo Wharf, have a total length of 1,100m. The berths have alongside depths of 10 to 13m and can accommodate vessels up to 40,000 dwt.

Berth No. 7 to Berth No. 10 have lengths ranging from 60 to 150m, with alongside depths of 1.5 to 8m. The berths can accommodate vessels from 3,000 to 8,000 dwt.

Phosphate Berth A, close S of the General Cargo Berth, is a dolphin-type berth, 210m long, which can accommodate vessels up to 20,000 dwt, with a maximum draft of 11m, although it has been reported that the maximum draft acceptable is only 9.1m.

Phosphate Berth B, close S of Phosphate Berth A, is 180m long, with dolphins situated about 60m off each end. Vessels up to 100,000 dwt, with a maximum draft of 14.4m, can be accommodated.

A power station stands 1 mile S of Phosphate Berth B; two water intake structures stand offshore, about 100m WNW of the power station.

Mo'ta Floating Berth, about 2 miles SSW of Phosphate Berth B, handles vessels loading cement. It can accommodate vessels up to 20,000 dwt, with a maximum length of 150m and a maximum draft of 15m.

Container Berth, located just S of Mo'ta Floating Berth, is a 540m long quay. It can accommodate three vessels up to 100,000 dwt, with a maximum draft of 14m.

A ro-ro berth, which is 40m long and is located on the N end of the Container Berth, can accommodate a vessel with a maximum length of 180m and a maximum draft of 10m.

Yamouk Floating Berth, situated about 0.2 mile S of the container terminal, handles passenger, container, and ro-ro traffic. The berth has a length of 150m; vessels up to 170m long, with a maximum draft of 9m, can be accommodated.

Jordan Fertilizer Industry Jetties provide three berths, with a total length of 345m, which can accommodate vessels up to 50,000 dwt and can also handle ro-ro traffic.

The North Jetty, also known as the Multi-Purpose Jetty or the Timber Berth, can accommodate vessels up to 8,000 dwt, with a maximum length of 120m and a maximum draft of 6.8m.

The South Jetty is L-shaped, with the outer portion about 285m long. Vessels can be accommodated, as follows:

1. Outer Berth (West Berth)—Bulk carriers up to 50,000 dwt, with a maximum length of 230m, a maximum draft of 15m, and a maximum height of 23m above the waterline.
2. Inner Berth (East Berth)—Bulk carriers up to 30,000 dwt, with a maximum length of 190m, a maximum draft of 11m, and a maximum height of 23m above the waterline.

Vessels intending to berth at South Jetty should send their ETA 7 days prior to arrival, repeating it 96 hours, 72 hours, 48 hours, and 24 hours prior to arrival.

In the main harbor complex, petroleum is handled at Phosphate Berth A.

Aqaba Oil Terminal, about 8.5 miles SSW of the main port area, consists of a 362m long ULCC. A vessel with a maximum length of 370m and a maximum draft of 24m can be accommodated. A vessel should arrive fully inerted.

Tankers intending to use the Aqaba Oil Terminal must inform the Port Authorities by cable or letter at least 15 days prior to arrival. Their ETA should be confirmed 5 days before arrival and every day thereafter. Tankers can only berth and unberth during daylight hours and tugs must be used.

Moshterak Berth offers a berth to vessels with a maximum length of 250m and a maximum draft of 11.8m.

Aspect.—A fort and a minaret close NE of the town are conspicuous from seaward over the palm trees that front the town; the customhouse on the coast W of the town is largely obscured by trees.

A conspicuous minaret stands close N of the customhouse, although it has been reported (1994) that new construction in the city obscures the minaret.

A large conspicuous white building stands in the middle of the town, about 0.2 mile NE of the customhouse.

A windsock, about 2 miles NNW of the town, is also conspicuous, as is the loading elevator on the phosphate pier.

A tower usable as a range with a light close NE sits on the N end of Victoria Pier.

Pilotage.—Pilotage is compulsory for all vessels bound for Al Aqabah for berthing and unberthing or for entering the near and far anchorages. Vessels may leave from the anchorages without a pilot.

Vessels should send their ETA about 24 hours and 12 hours in advance. The pilot boat is equipped with a radiotelephone. Pilots board, as follows:

1. For Aqaba and anchorages—about 1 mile W of Al Burj (29°30'N., 34°59'E.).
2. For the Container Berth—about 1 mile SW of the berth.
3. For Moshtarkek and Mo'ta Floating Berth—about 1 mile SW of the berth.
4. For Yarmouk Floating Berth—about 1 mile SW of the berth.
5. For Jordan Fertilizer Industry Jetties—about 1 mile SW of the jetties.

Regulations.—See Pub. 160, Sailing Directions (Planning Guide) South Atlantic and Indian Ocean for details on regulations pertaining to vessels in Jordanian waters.

Vessels arriving after 2000 are not permitted to enter Jordanian waters.

Explosives are discharged at the anchorage during daylight only.

As of January 1, 1981, ships which were built 15 years or more ago, with certain exceptions, will be banned from the port of Aqabah due to lack of operation facilities.

Signals.—Vessels bound for this port are requested to send the following information to the harbormaster at least 24 hours prior to arrival:

1. Vessel name.
2. Vessel flag.
3. Last port of call.
4. Next port of call.
5. Cargo for this port.
6. Tonnage and type of cargo.
7. Vessel length.
8. Vessel beam.
9. Tonnage (grt and nrt).
10. Draft (forward and aft).

11. ETA.
12. Name of vessel's agent.
13. Year built.
14. Location of ro-ro ramp, if applicable.

Vessels arriving from seaward should, in addition to their signal letters, hoist the flags prescribed by the International Code of Signals.

Vessels in the harbor requiring a pilot should call the pilot through Aqaba Port Control Radio (VHF channel 16) 1 hour before they are ready to move.

Tankers may not berth alongside Phosphate Berth A if the following signals are shown from the top of the loading elevator on this pier:

1. By day—a red flashing light
2. By night—two red fixed lights, horizontally disposed.

Anchorage.—Eight anchorage berths, best seen on the chart, offer depths of 27 to 55m, sand and coral, good holding ground.

An area off the port, inside the 100m curve and consisting of Anchor Berth 1 to Anchor Berth 4, has been reported to be termed the "near" anchorage, and is utilized by vessels working cargo.

The area seaward of the 100m curve and consisting of Anchor Berth 5 to Anchor Berth 8, reportedly has been named the "far" anchorage, and is utilized by vessels awaiting a berth.

Anchorage is prohibited within 0.6 mile of the jetty close S of the wind sock mentioned above.

Reports have also indicated that anchorage is prohibited within 1 mile of Berth No. 1.

Jazirat Tiran to Jiddah

6.11 Jazirat Tiran (27˚56'N., 34˚33'E.) has a sloping sandy beach along its E side for a distance of about 2.5 miles NW from **Champlain Point** (27˚55'N., 34˚37'E.). Several well defined coral rocks lie close offshore on the coastal reef within 0.8 mile farther N. A coral reef, with a least depth of 0.3m, lies about 1 mile E of Champlain Point, and several detached shoals, with depths of 2.7 to 8.8m, lie within 2 miles of this point.

Anchorage.—Anchorage can be taken about 0.3 mile offshore, in 22m, sand and coral, good holding ground, with a conspicuous hump, about 1 mile WSW of Champlain Point, bearing 342˚, and the S edge of Jazirat Tiran bearing 268˚.

Anchorage can be taken off the E side of Jazirat Tiran. Care should be taken to avoid the reefs and rocks between Jazirat Tiran and Jazirat Sanafir.

Approaching through the channel between Champlain Point and the coral reef E is not recommended during N winds.

In August many years ago, a vessel anchoring off Champlain Point experienced a N gale, which came up suddenly at night. These gales are reported to occur frequently during the night in this locality.

It was reported in December, many years ago, that the tidal currents in the passage E of Jazirat Tiran set N during the rising tide and S during the falling tide.

Jazirat Sanafir (27˚56'N., 34˚43'E.) lies about 2 miles E of Jazirat Tiran. Numerous broken peaked limestone hills rise on the E part of the island, with the highest being near the SE extremity of the island.

Jazirat Abu Shushah (27˚56'N., 34˚54'E.) is low at its N end, but gradually rises at its S end to a bluff, 61m high. It appears wedge-shaped on E or W bearings.

Jazirat Burqan (27˚53'N., 35˚04'E.), 30m high, lies about 7 miles E of Shushah Island, and is divided into two parts connected by a low sandy isthmus. When seen from a distance, the island appears as two wedge-shaped islands; closer in it appears broken and rugged, with large masses detached from the hills lying at their bases. A good lookout is necessary as there are many uncharted coral reefs, awash, in this locality.

Jazirat Yuba (27˚46'N., 35˚07'E.) is about 107m high. The island is precipitous and cliffy at its N end, gradually sloping to its SE end. Three rocky islets lie on the reef bordering the SW side of the island. Shib Pelham, which dries, lies about 2 miles NNW of Jazirat Yuba.

Jazirat Walih and Jazirat Julajilah are both low, and lie about 1.5 miles E of the N end of Jazirat Yuba and 2.5 miles E of the S end of Jazirat Yuba, respectively. The latter islet stands on a reef, with sunken rocks, which extends about 2 miles W and S from its NW and SE ends, respectively.

6.12 Ash Sharmah (27˚56'N., 35˚15'E.), a small subsidiary port of Yanbu, is reached by a buoyed channel leading from a point off the N end of Yuba, NE to the pilot boarding station. Range lights, in alignment bearing 036˚, lead from the pilot boarding ground to the port area. A grounded barge, with a length of 130m, offers a berth which will accommodate drafts of 7.8m alongside.

It was reported that several other berths were under construction here.

Pilotage.—Pilotage is compulsory and may be had about 4 miles SSW of the port, just W of the range line. Pilotage is available during daylight hours only. The pilot may be contacted on VHF channel 16.

Regulations.—See Pub. 160, Sailing Directions (Planning Guide) South Atlantic Ocean and Indian Ocean for regulations pertaining to vessels in Saudi Arabian waters.

Caution.—The fairway entrance N of Yuba is about 2 miles wide, and shows depths of 96 to 239m but leads between isolated shoal patches with depth of 9m. The areas outside of the buoyed channel are unsurveyed.

Take care when steering on the entrance range, as shoal water lies close NW, and in the vicinity of the pilot station. The least charted depth on the range line is 70m.

Jazair Silah is a low group of coral reefs and islets extending from 6 to 12 miles SE of Jazirat Yuba.

6.13 Al Muwaylih (27˚40'N., 35˚29'E.) is a village consisting of a few huts and some stone houses. On the S side of the village is a conspicuous fort with a minaret.

A spit, on which stand some palm trees, extends WSW from the fort, and continues under water for some distance. This spit can be seen under favorable light conditions.

Temporary anchorage can be taken off Al Muwaylih on a coral bank, about 0.5 mile in extent, with the minaret in the fort bearing 111˚, distant 3.5 miles.

Sharm al Harr (Sharm Yahar) (27˚37'N., 35˚31'E.), narrow and fringed by reefs, lies about 4 miles SSE of Al Muwaylih. It is difficult to identify because of the low coast in the vicinity.

Sharm Jubbah (27˚33'N., 35˚33'E.), another narrow inlet fringed by reefs, provides good and secure anchorage, in 9.1 to 12.8m. The entrance of this inlet is fringed by reefs, making it tortuous. Mooring and unmooring is performed during daylight hours only. Vessels should send their ETA 7 hours2, 48 hours, and 24 hours before arrival.

6.14 Duba (Dhiba) (27˚34'N., 35˚32'E.), is situated in a natural harbor and is approached through a 100m wide entrance channel marked by lighted beacons. The channel is 1,482m long and 95m wide, with a depth of 11m; the maximum draft allowed is 9.5m.

The quay, which consists of three berths, has a total length of 600m and has a ro-ro facility at its S end, with a 30m ramp.

Berth	Length	Max. draft	Remarks
1	200m	10m	Livestock
2	200m	10m	General cargo
3	200m	10m	Ro-ro

Pilotage is compulsory for all vessels greater than 150 nrt; the pilot boards in position 27˚34.2'N, 35˚29.7'E.

The recommended anchorage is SE of Sila Shoal Lighted Buoy.

Sharm Dahba and Sharm Qafafa lie about 22 and 24 miles, respectively, SSE of Al Muwaylih. The former is entirely filled in and the latter has not been sounded. A conspicuous white house stands on the N side of Sharm Qafafa.

Dhaba, a village consisting of a few houses and a fort, stands near the coast, about 1 mile SE of Sharm Qafafa.

6.15 An Numan (27˚06'N., 35˚45'E.) is low and sandy at its N end, gradually rising to red limestone cliffs and hills, about 122m high, at its S end. These hills, fringed by a few bushes, have a rugged appearance.

Sharm an Numan, on the E side of An Numan, provides good anchorage, in 8.5 to 14.6m, coral. This anchorage is sheltered, as its sides rise almost vertically to about 30m.

The coast between An Numan and Sharm Habban, about 75 miles SSE, is fronted by steep overhanging cliffs of coral and sandstone. A level ledge of rocks extends about 37m from the base of these cliffs and rises like a wall from a considerable depth.

The outer part of this ledge is nearly dry. The sea, at times, breaks with violence and produces a surf against this ledge, which makes landing between the inlets difficult.

On the off-lying banks along this coast are several low sandy islets and large patches of coral reefs, with deep water between them, lying as far as 8 miles offshore. These reefs should not be approached, however, without local knowledge.

Between Sharm Habban and Ras Karkuma, about 12 miles S, the coast is low and sandy, with low coral cliffs in places.

Sharm Jazzah (26˚57'N., 35˚57'E.) is small and does not provide good anchorage. The country in the vicinity is barren, with a stratum of black stone on the surface of the hills giving it a bleak and desolate appearance.

Marsa Zubaydah (26˚52'N., 36˚01'E.), about 5 miles SE of Sharm Jazzah, lies on the E side of an islet on a reef extending from the shore; this bay, with depths of 18.3 to 55m, is fringed by reefs. Marsa Zubaydah provides sheltered anchorage, but the holding ground is bad.

An Nabqiyah (27˚44'N., 36˚01'E.), on the middle of the large bank, about 14 miles SSE of Sharm Jazzah, is low, sandy and covered with bushes.

Al Uwaynidhiyah is a low, sandy islet about 8 miles SSE of An Nabqiyah.

6.16 Sharm Dumaygh (26˚39'N., 36˚11'E.) provides well-sheltered anchorage in its W part, in 16.5 to 23.8m, soft sand and coral, good holding ground. A good berth is with Mark Rock, a white conspicuous rock on the NE shore of the inlet, bearing 087˚ and the E extremity of the W side of the entrance bearing 176˚.

Vessels without local knowledge should mark the channel before entering to avoid the steep and dangerous patches near the middle of the inlet and the shoal ground extending some distance E from the W side of the entrance.

The best time to enter is with the sun high or astern and at LW, when the reefs are visible.

Sharm Antar (26˚36'N., 36˚13'E.) is small and provides good anchorage.

Sharm al Wajh (26˚13'N., 36˚27'E.) is free of dangers in the approach. The shores of the inlet are fringed by a reef; the head of the inlet is foul. There are depths of 27.4m in the entrance, which is about 0.1 mile wide between the reefs, shoaling to about 5.5m about 0.2 mile within.

The coast in the vicinity consists of coral cliffs 15 to 21m high. A low plain, which is marshy near the sea and covered with salt encrustation, lies between these coral cliffs and the steep hills 3 or 4 miles inland. A fort, about 6 miles E of this inlet, is surrounded by hills.

Al Wajh, a village on the NW shore of the inlet, consists of some stone houses, a few minarets, and a fort. Two jetties, in ruins, on the NW side of the inlet, constitute a danger for boats approaching the landing quay.

A lighted radio mast, 75m high, stands about 3 miles ENE of town.

Anchorage.—Small vessels can take good anchorage in Sharm al Wajh. The best berth is in 12.8m, about 183m SSE of the SE extremity of the village.

A vessel of moderate size can lie, moored head and stern, close inside the N entrance point, in stiff clay. This position is clear of the swell setting across the entrance, and safe against a shift of the wind to the S and SE, which is often very sudden; a NW swell sets into the inlet.

Large vessels can take indifferent anchorage, in about 59m, about 0.5 mile SW of the entrance of the inlet. Rayikhah, about 5 miles WSW of Sharm al Wajh and described in paragraph 6.17, is a good mark in the approach to this inlet.

6.17 Ras Kharabah (26˚09'N., 36˚28'E.) is fringed by a reef; a small patch, not always seen, lies a short distance outside the visible reef off the point. An opening in the coastal reef near this cape affords good landing.

An inlet, about 2 miles SE of Ras Kharabah, can be distinguished from N by a bluff sloping to the low coast.

To the S of this bluff, the coast is reported covered with scrub. Another bluff, covered with black soil or stones, but not

so conspicuous, lies farther S. Anchorage, in 31.1 to 36.6m, has been taken off this inlet.

Sharm Habban (26˚06'N., 36˚32'E.), about 6.5 miles SE of Ras Kharabah, is narrow and fringed by reefs. This inlet affords good anchorage in 7.3 to 9.1m, sand and mud.

A detached reef extends from about 0.1 to 0.2 mile NW from the SE entrance point; two reefs project as far as about 0.1 mile NW from the S shore of the inlet.

These projections and the detached reef are marked by discolored water; the channel N of these dangers is 91m to 270m wide. There are depths of 6.9 to 7.8m in the entrance and from 5.9 to 14.6m inside the inlet.

Rayikhah (26˚10'N., 36˚22'E.), low and rocky, gradually rises from its E end to a height of 15.2m in the middle and at its W end. Good anchorage, in 18.3 to 21.9m, can be taken S of the rocky patches between Rayikhah and the islets E.

Mardunah, about 8 miles SE of Rayikhah and on the S end of the same bank, is a coral ridge in detached pointed masses, about 61m high.

Ras Karkuma (Ras Qurqumah) (25˚53'N., 36˚38'E.) is fringed by a reef which extends about 2 miles WSW. The land within this cape rises gradually to a height of 122m, about 2 miles E.

6.18 **Shaykh Mirbat** (25˚54'N., 36˚35'E.), about 3 miles W of Ras Karkuma, is a low coral island, bordered by reefs; a conspicuous tomb stands on the island. A detached islet, 4m high, lies close off the W end of the island; a rock, 0.3m high, lies about 1 mile WNW of the island.

The approach to this island is safe, as the reefs surrounding it and those to the S are visible. Hawar Islet, about 5 miles SSW of Shaykh Mirbat, and Umm Urumah, about 1 mile farther S, are both low and sandy; the latter islet is covered with bushes.

Mashabih (25˚39'N., 36˚28'E.) is composed of level coral about 6.1m high. Its W coast, consisting of coral cliffs, is bordered by a steep-to reef, on which are several rocks.

Shaybara (25˚24'N., 36˚50'E.) is a low, sand and coral island with many bushes, lying on the SE extremity of a reef with many coral islets on it. Wughadi, about 3 miles SE of Shaybara, is a low islet.

Anchorage.—Good anchorage can be taken in the inner channel among the reefs between Ras Karkuma and Wughadi, but no vessel should pass inside the reefs in this locality except to take up a temporary anchorage.

6.19 **Umm Lajj** (25˚02'N., 37˚14'E.) is a small village on the coast, with a conspicuous white minaret. A large table-topped mountain, about 1,219m high, lies about 8 miles ENE of Umm Lajj. It is somewhat isolated and is a fairly good mark.

Nipple Hill, about 3 miles E of Umm Lajj, is a sharp cone in the coastal range and the highest peak in the vicinity. It is rather difficult to distinguish, but when in range with the above table-topped mountain, its identity becomes apparent.

Al Hasani (24˚58'N., 37˚03'E.), an island fringed by coral reefs lying about 9 miles SW of Umm Lajj, is 159m high near the center, with two peaks, each 146m high, on its W side. The W side of these latter two peaks is steep, but the E side falls gradually to a plain.

A tomb, on the E side of the island, about 0.4 mile N of its SE end, and a small white house, about 0.2 mile farther N, are good marks when visible.

A sand patch, on the S side of the island close to its SE extremity, is conspicuous.

There appears to be no passage over the foul ground, with numerous coral heads, extending N and NE from Al Hasani and continuing to the coast.

A reef extends about 2 miles S from the SW end of the island; from the same point a conspicuous sand spit extends about 1 mile along the middle of this reef.

Numerous detached coral patches and rocks lie between the S end of this reef and the SE extremity of the island. The sea around Al Hasani is very clear, and even patches with depths of 9m show well in certain lights.

Anchorage.—Anchorage can be taken about 0.5 mile E of Al Hasani, in about 14.6m, sand and coral, fair holding ground, with the SE extremity of Al Hasani bearing 227˚ and the small white house bearing about 270˚.

6.20 Lubanah, 76m high, about 0.5 mile W of Al Hasani, is, except on its NE side, bordered by a reef extending about 0.5 mile S from it. The passage between Lubanah and Al Hasani is encumbered with several coral patches.

A chain of reefs extends about 6 miles W from a position about 3 miles W of the N end of Al Hasani. The three largest reefs in this chain are awash at LW, and the sea generally breaks over them.

Shib Asbayzeniyat (24˚51'N., 36˚58'E.), over which the sea breaks during any wind, lies about 8 miles SW of the SE extremity of Al Hasani.

Shib Al Abyadh (24˚54'N., 37˚07'E.), about 3 miles SSE of Al Hasani, dries 0.3m. Rocky foul ground extends about 1 mile N from Shib al Abyad and SE to the coast.

6.21 **Umm Sihr** (24˚57'N., 37˚09'E.), about 3 miles ESE of Al Hasani, is 4.5m high and covered with sparse vegetation. This islet is fringed, except at its E end, by a reef which extends about 0.5 mile S and NW.

A rock, 0.9m high, stands near the N end of the NW reef; about 0.2 mile farther NW is a rocky patch, with a 5.5m patch close S. Shoals, with depths of less than 10.9m, extend about 0.6 mile N and WSW, respectively, from this rocky patch.

Malihah (25˚00'N., 37˚07'E.), about 2.5 miles NE of Al Hasani, is a sand cay with some reported scrub. A reef extends about 2 miles W from this sand cay. Some patches extend as far as 0.9 mile E from Malihah; a detached patch lies about 1 mile SSW of it.

Gateway Channel, between Umm Sihr and Malihah, is narrow and has a least depth of 7.3m within about 0.2 mile on either side.

Shib al Guak (24˚59'N., 37˚11'E.), which dries, lies about 3 miles NNE of Umm Sihr. Some patches lie as far as 1 mile E from this reef, and a detached patch lies about 1 mile SE. The sea sometimes breaks on these reefs, but they cannot be depended upon to be visible.

Tides—Currents.—It was reported that a constant current sets N and E between Al Hasani and Ras Abu Madd.

Anchorage.—The only safe anchorage for large vessels near Umm Lajj is on a bank which extends about 1 mile N from Shib al Guak and the reef E.

A good berth is in 12.8 to 18.3m, with the minaret at Umm Lajj bearing 051°, distant 2.5 miles. The bottom is sand, interspersed with coral patches and boulders, and is fair holding ground.

6.22 **Ras Abu Madd** (24°50'N., 37°08'E.) is low and sandy. Black Hill, 274m high, stands about 11 miles E of Ras Abu Madd, and is conspicuous when seen from NW.

A range of mountains, 457 to 610m high and broken into detached pyramidal hills, stands about 15 miles inland in this vicinity.

Sugarloaf (24°33'N., 37°32'E.), about 28 miles SE of Ras Abu Madd, is the westernmost hill of any prominence when seen S of **Ras Baridi** (24°17'N., 37°30'E.).

Jabal Hajinah, with six peaks, and another hill, lie about 9 miles ESE and 5 miles NE, respectively, of Sugarloaf; they are con-spicuous when a vessel is near the coast.

The high land N of these hills is part of the mountain range extending inland from Umm Lajj SE to the vicinity of **Yanbu** (24°05'N., 38°03'E.). Round Mountain, about 17 miles NE of Jabal Hajinah, is the summit of this range.

Jabal Radwa (24°36'N., 38°16'E.), about 47 miles ENE of Ras Baridi, is the highest point of a range of table mountains.

Between this range and the coast is a group of dark-colored hills, generally about 152m high.

6.23 **Jabal Subh** (23°18'N., 39°01'E.) is the summit of a range about 24 miles in extent. It is the highest land between Yanbu and Jiddah.

Between Ras Abu Madd and Ras Mahar, about 8 miles SSE, the land near the coast is in some places low and sandy and in others high and rocky.

To the SE of Ras Mahar, the land rises gradually to elevations of 30 to 61m and forms an extensive tableland. The W side of this slope is intersected by numerous water courses. The coast is reported to be radar conspicuous.

Ras Mahar (24°43'N., 37°11'E.) is about 24m high and rocky, its upper part considerably overhanging the base. A small patch of rocks extends from it. A short distance SE of Ras Mahar is a similar bluff, about 49m high.

Anchorage.—Good anchorage can be taken in Sharm Mahar, about 3 miles SE of Ras Mahar, in 12.8m, sand, sheltered from NW winds.

A deep valley in the moderately high tablelands closely approaching the coast in this vicinity is conspicuous and marks the inlet. This valley is extensive and spreads out to a considerable width as it advances to the interior.

The lower part of the valley is covered with bushes and a few straggling palm trees can be found about 1 mile inland.

This valley has the appearance of a dry bed of a river. The upper part of the hills on either side overhang considerably, and large fragments from them lie scattered in the valley.

6.24 **Sharm Hasy** (Sharm Hasi) (24°39'N., 37°18'E.) is fringed by reefs, which extend as far as 0.3 mile from the E shore of the inlet. The N half of this inlet is shoal and encumbered with reefs.

Good anchorage can be taken by small vessels about 1 mile inside this inlet, in 9.1 to 12.8m. Anchorage in the outer part is not recommended, as the channel is contracted and the bottom is foul.

The coast between **Ras al Lakk** (24°24'N., 37°25'E.) and Ras Baridi, about 8 miles SE, is steep-to and composed of coral cliffs. Ras Baridi is low and sandy. A conspicuous cement silo stands about 2 miles E of the point. The silo is lit at night, and should not be mistaken for Yanbu.

Sharm al Khawr (24°17'N., 37°40'E.) is an unsurveyed inlet lying about 8 miles E of Ras Baradi. A bank, on which numerous dangers lie, extends about 14 miles S of the W entrance point of the inlet.

Sharm Yanbu (24°10'N., 37°55'E.) is about 1 mile wide. The inlet extends about 6 miles NNE, with a branch extending E close within the entrance and one extending NW farther in.

Depths of 12.8m were reported in the entrance and 12.8 to 18.3m in the harbor, which had a hard sandy bottom. There is a rock in the N arm, with shallow water between it and the shore to the N.

Yanbu (24°05'N., 38°03'E.)

World Port Index No. 48120

King Fahd (23°57'N., 38°13'E.)

World Port Index No. 48121

6.25 Yanbu stands on low sandy land which lacks vegetation and is fringed in places by a coral reef.

King Fahd is a major oil and general cargo port linked to a crude oil pipeline that is reported to originate in the E part of Saudi Arabia.

The berthing complexes here are approached from seaward by swept routes through the reefs N and S of the port area.

The N approach is made via two charted channels, leading in turn to a Traffic Separation Scheme, established by the local authority. The S approach is well-marked.

Winds—Weather

A diurnal sea breeze/land breeze cycle occurs almost daily throughout the year and causes wind speeds of 10 knots and above to occur from the NW during the late afternoon. Storms occur as frequently as every 5 to 10 days and sometimes can last as long as 2 weeks.

Although there is little drop in barometric pressure and very rarely any precipitation during these storms, wind speeds of up to 30 knots may occur from the N or NW.

The incidence of fog is rare, but, should it occur, it is more likely during the period from November to April.

During the summer months, from May to September; the incidence of poor visibility (less than 5 miles) can be quite high due to mist and haze, or dust particles held in suspension in the atmosphere. However, throughout the year, dust storms may occur obscuring the coastline.

Tides—Currents

The tidal range is about 0.6m at spring tides, but fluctuations due to non tidal effects are up to about 0.5m. The fluctuations due to non tidal effects are caused by storms which can cause a mean sea level drop of 0.6m during the storms and a significant increase in mean sea level after the storm, or as it subsides. Generally the tides are semi-diurnal.

Currents in the area are influenced by local wind conditions, tide, and the general circulatory pattern of the Red Sea.

Generally, currents within the port have been observed at less than 0.5 knot and run parallel to the coast.

Depths—Limitations

Shib ash Sharm (24˚03'N., 37˚52'E.), awash and marked by a light, is an extensive bank lying from 6.5 miles SW to 8.5 miles S of the entrance to Sharm.

Reefs, drying reefs, and other dangers, which are best seen on the chart, extend SE and S of Shih ash Sharm to **Yanbu South Light** (23˚28'N., 38˚26'E.).

The N approach, consisting of the Seaward Approach Channels, are entered respectively about 47 miles SW or 50 miles W of the light on Shib ash Sharm. They are deep, well-surveyed, and best seen on the appropriate chart. The waters outside of the channels are unsurveyed.

The Traffic Separation Scheme leading from the pilot station to the boundary of the Controlled Navigation Area shows a least swept depth of 32m.

The S approach channel, entered about 2 miles SE of Yanbu South Light, is deep and well-marked, but requires local knowledge.

The port of Yanbu is entered from the Traffic Separation Scheme via a channel dredged to a depth of 12m. A turning basin dredged to the same depth lies in the center of the harbor. It has been reported that the entrance channel and turning basin have been dredged to a depth of 14m.

Nine berths, with a total length of 1,440m and alongside depths of from 10 to 12m, are available. Berth No. 1 serves as the passenger terminal, while Berth No. 3 and Berth No. 4 handle bulk cement. Ro-ro traffic is accommodated at Berth No. 5 through Berth No. 9; general cargo can be worked at any berth.

Within the Controlled Navigation Area off King Fahd, a line of shoals, with a least charted depth of 3m, lies parallel to, and up to 2.5 miles off the shore.

A deep channel clear of dangers and about 1.5 miles wide lies between these shoals and the edge of the Controlled Navigation Area.

The General Cargo and Container Terminal lies in the NW part of King Fahd. The terminal is approached via a fairway dredged to a depth of 16m and a turning basin dredged to a depth of 15m. The quay has a total length of 1,420m and is comprised of seven berths, with a dredged depth of 14m alongside. Two of the berths are for handling containers and one for ro-ro cargo. Vessels with a maximum draft of 12.5m can be accommodated.

The Bulk Terminal, consisting of two berths, with a total length of 500m, has a dredged depth of 15.5m alongside. The terminal can accommodate vessels up to 60,000 dwt, with a maximum draft of 13.9m.

The Export Refinery Terminal, which is L-shaped, consists of two berths in its inner basin and two berths along its outer face. The two inner berths can accommodate vessels of 5,000 to 35,000 dwt, with a maximum length of 200m and a maximum draft of 12.2m. The two outer berths, known as Suez West and Suez East, are dredged to 18.5m, and can accommodate vessels from 30,000 to 150,000 dwt, with a maximum draft of 16.6m.

The Crude Oil Terminal, a T-shaped jetty, lies close SW of the Export Refinery Terminal. The outer face consists of four berths, although only two vessels can berth here simultaneously. Vessels may not berth or unberth at night if wind speeds are greater than 20 knots. Berthing limitations are, as follows:

1. Berth No. 61, with an alongside depth of 28m, can accommodate vessels of 80,000 to 275,000 dwt, with a maximum draft of 25.3m.
2. Berth No. 62, with an alongside depth of 32m, can accommodate vessels of 275,000 to 500,000 dwt, with a maximum draft of 28.9m.
3. Berth No. 63, with an alongside depth of 27.4m, can accommodate vessels of 120,000 to 275,000 dwt, with a maximum draft of 24.7m.
4. Berth No. 64, extending SE from Berth 63, has a depth of 25.9m alongside and can accommodate tankers of 100,000 to 400,000 dwt, with a maximum draft of 23.1m.

The NGL Terminal, L-shaped, dredged to 18.3m, provides two berths alongside its outer face for vessels loading refrigerated LPG or other specialized cargo. The berths can accommodate vessels up to 60,000 dwt, with a maximum draft of 16.2m.

The Yanbu Petromin Refinery Terminal consists of an L-shaped quay providing two berths on its inner face and two berths on its outer face. The inner berths, dredged to a depth of 11.5m, can accommodate vessels up to 20,000 dwt. The outer berths, dredged to 16m, can accommodate vessels of 20,000 to 80,000 dwt.

The Construction Support Terminal is no longer in use, but can be reactivated if necessary. The terminal consists of an L-shaped pier and a ramp. Vessels with a maximum length of 205m can be accommodated at the inner berth; vessels with a maximum length of 250m can be accommodated at the outer berth. Bulk carriers up to 72,000 dwt, with a maximum draft of 11m, and general cargo vessels up to 50,000 dwt, with a maximum draft of 11.5m, can use this terminal.

Ras al Muajjiz Tanker Terminal, located at the SE end of King Fahd, consists of three loading stations. Berth No. 101 and Berth No. 103 can accommodate vessels of 35,000 to 300,000 dwt, with a maximum length of 347m, a maximum beam of 66m, and a maximum draft of 26.2m. Berth No. 102 can accommodate vessels of 100,000 to 500,000 dwt, with a maximum length of 421m, a maximum beam of 76.2m, and a maximum draft of 29.6m.

Aspect

Reefs and shoals, lying up to 38 miles offshore, front the shore in the vicinity of Yanbu. This section of coast is lower

Yanbu

King Fahd Industrial Port

than the coast to the N marshy, and thickly covered by mangroves. Inland, sharp, conical hills up to 300m high, and all the surrounding land appear to be covered by a fine light sand.

Yanbu.—A conspicuous white building (the Harbormaster's Office) and a water tower stand near Berth No. 1.

Two cement silos, and another water tower about 0.3 mile NE of them, are conspicuous.

The taller buildings of the tower are reported to be visible up to 13 miles offshore.

In the early morning, mist may obscure the hinterland. After 0900 the sun is sufficiently high for the reefs to be seen easily.

King Fahd.—The **Port Control Tower** (23˚57.2'N., 38˚13'E.) is prominent. A radio mast, 60m high, stands about 3.5 miles N of the control tower.

A group of six conspicuous flares stands within a short distance of each other near the root of the NGL Terminal, about 2 miles E of the Port Control Tower.

Several groups or pairs of conspicuous chimneys, all of which show flashing obstruction lights, are situated, relative to the Port Control Tower, as follows:

1. Two chimneys, each 88m high, standing close together, 1.5 miles N.
2. A group of three chimneys, each 142m high, about l mile NE.
3. Two chimneys, about 3.5 miles E.
4. Two chimneys (23˚52'N., 38˚22'E.) standing close together near the coast 4.5 miles SE of the Construction Support Terminal.

It is reported that a tower, from which a strobe light is shown, stands approximately 1.5 miles N of the Port Control Tower. This light has been sighted from a distance of 32 miles.

Pilotage

Pilotage for Yanbu, which is available 24 hours, is compulsory. The vessel's ETA should be reported 10 days, 2 days, and 24 hours before arrival.

Vessels should send their ETA at the outer pilot boarding position and await instructions from King Fahd port before proceeding to the inner pilot boarding position. A pilot will board at the outer pilot boarding position if arranged well in advance. Pilot boarding and disembarking is at the discretion of the pilot.

The pilot boards, as follows:

1. Northern approach.
   a. Outer—in position 24˚02'N, 37˚44'E.
   b. Inner—in position 24˚05'N, 37˚55'E.
2. Southern approach.
   a. Outer—in position 23˚26.6'N, 38˚27.2'E.
   b. Inner—in position 23˚50'N, 38˚19'E.

Pilotage for King Fahd is compulsory for all vessels of 300 grt and over; in the Southern Approach Channel, pilotage is compulsory for all vessels. The vessel's ETA is required 5 days, 72 hours, 48 hours, and 24 hours in advance. Any changes of more than 2 hours should be sent.

The vessel's ETA should be confirmed on VHF when vessel is within range. Permission to enter the port must be obtained from Port Control.

Regulations

Radio reporting points, the positions of which may best be seen on the chart, are established in the approaches to Yanbu and King Fahd. Inbound and outbound vessels should communicate with Port Control when passing through these positions.

Vessels carrying explosives of ammonium nitrate shall not be underway between sunset and sunrise. The Saudi Arabian flag should be hoisted when within territorial waters and kept flying day and night until the vessel departs Saudi Arabian waters.

Anchorage

Five anchorage berths are charted on a bank about 3 miles SW of the port control tower, with depths ranging from 29 to 53m, over a charted bottom of coral and fine sand.

Another anchorage, about 0.2 mile in radius, is charted about 1 mile SW of the Construction Support Terminal. The least swept depth at the anchorage is 32m. Another anchorage is

bound by a line joining Lighted Buoy 1R, Lighted Buoy 3R, and Lighted Buoy 1P. It lies close SW of the 32m depth anchorage, and can be used by vessels with a maximum draft of 10m.

Vessels are advised to take only temporary anchorage, and keep their engines ready to maneuver, especially in N to NW winds.

Directions

Vessels should not mistake the lights shown from the cement silo on **Ras Baridi** (24˚16'N., 37˚33'E.) for Yanbu when approaching from seaward.

In the N approach, the seaward approach channels are not marked, but the Traffic Separation Scheme, dredged cuts, and dangers inshore of the barrier reef are well-marked.

In the S approach, the channel through the reef is deep and well-marked, but it is inadequately charted at present.

Vessels are urged to contact the local authorities for the latest information on this channel and the approach routes to it.

Caution

The approach channels and waters of the port have been well-surveyed within the channel boundaries shown on the chart, but less water and/or uncharted dangers may exist outside of them. Vessels are strongly advised to remain within the fairways.

6.26 Ras al Abyad (23˚32'N., 38˚33'E.) is low and sandy. Ras Masturah, about 33 miles SSE of Ras al Abyad, is 20m high and is reported to give a good radar return.

Rabigh (22˚44'N., 38˚59'E.), about 4 miles SE of Ras Masturah, is a bay that has been dredged to provide an oil loading terminal for berthing VLCCs handling oil and other products of a large oil refinery close S of the harbor.

Winds—Weather.—The prevailing wind is reported from the NW. Gales from the S or SW, with poor visibility, occur most frequently between December and March.

Tides—Currents.—The tidal currents are weak and scarcely perceptible. The range of the tide is about 1.2m.

Depths—Limitations.—To the SW of the harbor entrance, and separated from it by a deep channel, is the N end of a bank which extends 25 miles S.

Numerous reefs lie on this bank, which is steep-to on its E side. Tanta Rock, marked by a light, stands on the N end of this reef, about 3 miles W of the harbor entrance.

The harbor is entered between Ras el Auliya, the SE extremity of a low ridge of hard sand, and Ras Abu Dibsa, about 0.4 mile farther SE. Drying reefs extend 1 mile SW from the W side of Ras el Auliya and 0.3 mile S of Ras Abu Dibsa.

The entrance channel, dredged to a depth of 28m and 400m wide at its outer end, narrows to 240m about 0.5 mile SW of Ras el Auliya, and then leads NE to a turning basin.

From the turning basin, Dry Cargo Port extends NE and Liquid Cargo Port extends SE. Pioneer Port lies close SW of Liquid Cargo Port.

Dry Cargo Pier is situated on the S side of the entrance channel, between Ras Abu Dibsa and Pioneer Port.

The turning basin is dredged to a depth of 27m and is about 900m in diameter; it is marked at its NW end by a lighted buoy.

Dry Cargo Port is dredged to depths of from 10 to 14m. This basin forms the non-commercial area of the harbor; there are piers for yachts along its SE side.

Liquid Cargo Port, 960m long on its NE side and 760m long on the SW, is 690m wide and dredged to a depth of 26.5m.

Berth No. 2 and Berth No. 3, on the NE side of the basin, each consists of a concrete T-headed jetty with mooring and breasting dolphins; the berths have depths of 26m alongside and can accommodate tankers from 30,000 to 325,000 dwt.

Pioneer Port is dredged to a depth of 15m. Four concrete piers, with depths from 7 to 15m alongside, project from the S side of the basin.

Pioneer Port is used by tugs and small craft. Dry Cargo Pier has a berthing length of 80m and a depth of 6.5m alongside. It is used for all handling of dry cargo and ro-ro traffic.

With strong W winds, to which the berth is exposed, berthing may be impossible, even with the help of tugs. The maximum permissible vessel length is 400m, while the maximum draft permitted alongside is 23m.

Aspect.—The entrance is marked by lighted buoys. Two stone huts stand on Ras el Auliya.

The customhouse stands on the N side of the bay, near three brick buildings, 1.5 miles NE of Ras el Auliya. The ruins of a pier extend from the shore about 0.1 mile SW of the customhouse.

Pilotage.—Pilotage is compulsory and is available 24 hours. the vessel should its ETA 5 days, 48 hours, and 24 hours in advance. Pilots board in the approach channel 2.25 miles NW of Tanta Rock.

The pilot vessel is equipped with VHF but communications should be through Port Control.

Anchorage.—Large vessels are reported to anchor SW of the refinery. Small vessels anchor SE of Tanta Rock.

6.27 Shib al Bayda (22˚44'N., 38˚47'E.) is steep-to and dries; the S end of the reef is marked by a beacon. Deep-draft vessels should pass at least 0.7 mile S of this beacon.

Shib Nazar (22˚19'N., 38˚51'E.) has depths of less than 1.8m and is located at the SW end of a bank that extends about 26 miles SSW from Rabigh.

Two stranded wrecks lie on the N part of the reef. The reef is marked by a lighted buoy.

Anchorage.—Anchorage can be obtained by small vessels with local knowledge off the NE side of Shib Nazar. Caution should be observed because of the several dangers in the area of Shib Nazar.

Al Qadimah (Mina al Qadimah) (22˚21'N., 39˚05'E.) is a port used principally for the unloading of military cargoes. Vessels are urged to contact local authorities before attempting to berth here.

Depths—Limitations.—The approach channel is entered between two buoys S of Shib Nazar. The fairway, which has a depth of 12m, leads from seaward through the coastal reef to the port.

A quay which has been built here is reported to have a length of 400m and depths of 13 to 14m alongside its W face; the NE face is reported to be 200m in length, with alongside depths of 7m.

Pilotage.—Pilotage is reported to be available by day only, W of the inner coastal reef.

Signals.—Port Control should be contacted via VHF before attempting to enter.

Anchorage.—Anchorage can be had at the pilot boarding ground, in depths of 15 to 20m.

Directions.—Vessels are urged to contact local authorities for the latest information on channel depths before attempting to berth here. A pair of range beacons, in alignment bearing 103˚, marks the channel reach passing through the coastal reef.

Caution.—The only landmark at the seaward end of the channel is reported to be a radar conspicuous wreck on Shib Nazar. In daylight, the edges of the reefs along the channel are clearly visible.

6.28 Between Ras Makhluq and **Ras Hatibah** (22˚00'N., 38˚58'E.) are several spacious anchorages, but they are difficult to approach because of the off-lying dangers.

Haramil, 3.3m high and covered with bushes, lies about 7 miles WSW of Ras Makhluq. It is merely an accumulation of drift on the upper ridge of a reef. An isolated steep-to patch, the existence of which is doubtful, lies about 5 miles WNW of Haramil.

Aiqa, a sandy islet, lies about 3 miles N of Ras Hatibah and 0.5 mile offshore.

Between Ras Hatibah and Ras al Sahhaz, about 30 miles SSE, the coast is low and sandy for the first 20 miles to Sharm Abhur; the high land inland presents no conspicuous features.

About 10 miles E of Sharm Abhur, North Sister and South Sister are the mountains to the N in the vicinity; they are conspicuous.

Shib Al Kabir (21˚41'N., 38˚50'E.) is reported to be marked by a light. This reef lies on the SW side of a bank which extends about 32 miles S from a position 15 miles SW of Ras Makhlug.

A stranded wreck lies about 3 miles N of the above beacon; the wreck is reported to give a good radar return.

Caution.—The reefs lying S and E of Shib al Kabir should be given a wide berth. Uncharted coral heads may exist within the 100m depth contour in this area. Reefs dry in the summer months when N winds are blowing, but may be covered by up to 1m with S winds.

Jiddah (Jeddah) (21˚29'N., 39˚11'E.)

World Port Index No. 48140

6.29 Jiddah, the pilgrimage port for Mecca (Makkah) and Madinah , is the principal port of Saudi Arabia on the Red Sea. The bay, entered between Ras al Jahhaz (Ras Qahaz) and Ar Ras al Aswad, about 9 miles S, is encumbered with a series of reefs, which form three nearly parallel lines in a N and S direction.

The port is so well-protected by these reefs that the sea within them is comparatively smooth regardless of the force and direction of the wind.

Jiddah, a town on the NE side of the port, is situated on a long sandy plain which extends 5 to 10 miles inland to the base of a range of hills.

Winds—Weather.—The prevailing winds are between N and W throughout the year, and although generally light to moderate, they are liable to freshen daily to a force of 4 to 6 by the afternoon.

The natives say that when the wind remains from the N during the night, a strong wind from that direction may be expected the next day; however, if the wind inclines to the E in the early morning, it will be light and the weather fine.

On rare occasions, the E winds sweep in, bringing sand from the desert, but they seldom exceed 17 knots. The S wind in summer, whether light or fresh, brings a high humidity; a fine dust sometimes accompanies it and reduces visibility.

Tides—Currents.—The currents in the approach are strong and variable, but in the bay itself no appreciable current is found.

The summer LW level is 0.6m below that of winter. In summer, when N winds prevail, many of the banks are dry. In January, many years ago, during a N gale of 5 day's duration, the level of water fell about 1.5m.

Jiddah Cobntainer Terminal (South)

Depths—Limitations.—Middle Gateway and Inner Gateway, with a least depth of 16m, over a width of about 0.1 mile, lead to the major facilities of the port.

The Petromin Approach Channel has been dredged to a depth of 16.4m (1996), while a side channel to the Royal Saudi Naval Facility has been dredged to a depth of 16.6m (1996). The main approach to the naval facility has been dredged to a depth of 11.6m (1981).

The least charted depth in the approach channel to ammunition pier is 6m.

Berth by Cargo Type	No. of Berths
Container Terminal (North)	4
Container Terminal (South)	7
General Cargo (North)	10
General Cargo (South)	12
Ro-ro and Passenger Terminal	10
Bulk Grain Terminal	7

Berth by Cargo Type	No. of Berths
Bulk Edible Oil and Bulk Sugar Terminal	2
Chilled and Frozen Cargo	4
Livestock Terminal	2

There are 58 numbered berths within the por,t for a variety of cargo types. The basins containing the various berths are dredged to depths of 11 to 15.5m.

Ro-ro terminals are situated at Berth No. 15 to Berth No. 20 , at the S end of Berth No. 56, and at the NW and NE corners of the N basin.

The Chyoda Island Oil Terminal is an offshore oil berth, located at the approximate position 21˚26.5'N, 39˚08.8'E. Vessels moor to a stern buoy, and take a floating hose aboard. Vessels are urged to contact the local authorities and the pilot for information on this berth.

The JORC Tanker Terminal offers four berths and is located along a causeway linked to the shore. Berth 1 and Berth 2 are located on the seaward face of the causeway, about 0.4 mile ESE and 0.4 mile SSE, respectively, of the Chyoda Island Oil Terminal; both berths are reported to be capable of handling crude tankers up to 100,000 dwt. The other two berths are located along the N face of Tanker Basin, about 0.5 mile ESE of the Chyoda Island Oil Terminal; reports have stated that these berths will accommodate vessels with a draft of 5.7m alongside. Vessels are urged to contact the local authorities and the pilot for information at this terminal before attempting to berth here.

The shipyard E of Anchorage A is contained within a basin, dredged to a depth of 8m. An ammunition pier is available about 3 miles SSE of the Chyoda Island Oil Terminal. The local authorities should be consulted before attempting to berth here.

Aspect.—The landmarks by which the position of Jiddah can be identified, before the town is visible, are not easily distinguished. The mountains backing the plain E of the town are so rugged and uneven that the peaks are difficult to identify. They are also very often obscured.

Jabal Umm Arar, about 10 miles NNW of Ras al Jahhaz, appears as the westernmost hill of a range N of Jiddah when approaching from S.

Jabal al Yamaniyah, about 8 miles ENE of Jiddah, is conical, and can easily be recognized when the town is on E or NE bearings, as it is then the most noticeable cone behind the houses. The jagged appearance of the double-peaked hill S of Jabal al Yamaniyah is an aid in identifying it.

Jabal Hadda, about 18 miles E of Jiddah, is a double peak with a saddle between them. It is generally the highest and most conspicuous of the nearer mountains to be seen, as the higher range behind Makkah is seldom visible.

Jabal al Moya, black and rounded, stands about 7 miles SSW of Jabal al Yamaniyah and is the S extremity of the range nearest the coast. This hill is conspicuous because of its color and its being at the end of a line of white sand hills lining the foreshore.

Jabal Sanam is a small but conspicuous nipple on a flat hill about 9 miles SE of Jiddah. This hill has the same appearance from all directions.

Juddah Marine Control Tower

When a vessel is near the latitude of Jiddah, the town itself can generally be seen from a position outside the reefs, with the buildings appearing white in the sun and several minarets showing above them. The beacons on some of the outlying patches are good marks, but cannot be depended on.

Great care should be taken not to mistake the lights of the airport, 14 miles N of Jiddah, for those of the city and the port.

The following may be useful marks when approaching Jiddah:

1. New Control Tower—twin towers standing on the W mole of the service harbor.
2. A conspicuous hotel about 3 miles N of the old control tower.
3. A fountain, which is conspicuous when illuminated during the King's presence in the city, is situated about 0.6 mile WSW of the hotel.
4. A conspicuous building 1.25 miles NE of the old control tower.
5. A conspicuous mushroom-shaped water tower standing about 3 miles ENE of the old control tower.
6. Conspicuous silos situated 0.75 mile ESE and 1.5 miles SSE of the old control tower.
7. A refinery, about 2 miles SE of the old control tower, consisting of a tower marked by obstruction lights, a conspicuous flare, and a number of silver colored tanks.

It has been reported that, due to the modern skyline of the city, the hotel and silos were difficult to distinguish.

A conspicuous group of buildings with a tower, 25m high, stands about 3 mile N of Ras al Jahhaz. The Prince's Palace, about 2 miles ESE of Ras al Jahhaz, is easily distinguishable as far as 8 miles by vessels approaching from W or NNW.

When vessels are approaching the gateways to Jiddah, the buildings on **Jazirat Abu Sad** (21˚26'N., 39˚10'E.) and Jazirat al Wusta, about 1.5 miles farther SSW, are good marks. The four buildings on the latter island have red roofs.

A jetty, which gives a good radar return, extends W from Ras al Jahhaz, 5 miles NNW of Jiddah Pier. A desalination plant with two conspicuous chimneys and a water tower are situated close NE of the jetty.

A factory and a chimney are situated 5 miles farther NE. A radio mast, with two dish aerials, stands 4 miles NNW of Jiddah Pier.

The headland 0.5 mile ESE of the SE end of Ras al Jahhaz is reported to give a good radar return.

A conspicuous office block stands in the commercial center of Jiddah. It was reported that this building was of particular assistance in identifying the position of Jiddah from seaward. The building is marked by obstruction lights.

Pilotage.—Pilotage is compulsory, and may be obtained about 1 mile NW of Shib Qaham. Tank vessels are boarded 0700 to 1800, while other vessels are boarded 24 hours.

Signals.—Vessels not equipped with VHF, and in need of pilotage, should make the following signals, in addition to the usual flag signals:

1. From sunset to sunrise—use flash "G" by signal lamp
2. In the event of poor visibility caused by rain, fog, or dust—sound "G" on the vessel's whistle. Vessels are reminded that this sound signal is in conflict with the International Regulations for Preventing Collisions at Sea.

The following information should be sent with the first ETA:

1. Name of vessel.
2. Flag.
3. Name, address, telephone number, and telex number of agent.
4. Speed.
5. ETA.
6. Type of radar.
7. Frequency.
8. Scan rate.
9. Pulse width.
10. Pulse peak power.
11. Pulse repetition rate.
12. Beam width .

Vessels equipped with more than one radar should give the information concerning radar for each radar. This information need only be supplied once.

The vessel’s ETA should be sent 5 days, 96 hours, and 72 hours, through Bahrain (A9M), and 48 hours and 24 hours in advance through Jiddah (HZH). Vessels should contact port control, as follows:

1. When within VHF range.
2. When 20 miles from the port, to confirm ETA.
3. When 2 miles from the pilot boarding position, if berthing, supplying the vessel’s grt, loa, draft, agent's name, last port of call, and cargo for Jiddah.
4. When anchored in the outer anchorage.
5. When entering, and before moving within the port limits.
6. On departure, berthing schedules are broadcast on channel 12 at 0630, 0730, and occasionally at 1830 local time.

Anchorage.—Several anchorages, which should only be used with permission of Port Control, have been established off Jiddah, as follows:

1. Anchorage A and Anchorage B are to be used by authorized vessels only.
2. Anchorage W1 and Anchorage W2 are cargo-working anchorages, with the latter designated for a single vessel carrying explosives. These anchorages also may not be entered or left without a pilot.
3. Anchorage C is for vessels carrying dangerous cargo.
4. Anchorage D is for dry cargo vessels.
5. Anchorage E is for tank vessels and serves as an overflow anchorage as well.

Caution should be exercised when using these anchorages, particularly those within the outer reefs. There is an area in the E section of Anchorage D where coral heads are known to exist.

Several anchors have been lost to the foul ground in the vicinity of Anchorage A. Numerous unmarked reefs border the inner anchorages.

A shoal patch, with a depth of 5m, lies close outside the NE corner of Anchorage B.

An area, shown on the chart, in which anchoring is prohibited, is established S of Anchorage E.

Directions.—In the approach to Jidda,h the turn should be made from a position well out to sea from about 30 minutes before to 30 minutes after sunrise at a distance of about 30 to 40 miles W of Jiddah. At this time, the mountains in the vicinity can occasionally be clearly distinguished and a reliable fix obtained.

Jabal Hadda will be the most prominent landmark, followed by the buildings at Jiddah, but in thick weather, which is common during the summer, these buildings can be seen only from a short distance.

The best time for entering is toward noon, as then the sunken reefs appear as dark green shadows on the surface. When the sun is low, or in thick, hazy, or cloudy weather, the reefs are not visible until close to them. Caution should be exercised when entering or leaving the anchorages, as the turns are sharp.

Caution.—Care should be taken when making Jiddah because of the variable and strong currents in the approach, and the excessive refraction sometimes encountered in these waters.

Two extensive reefs have been reported to exist between the positions 21˚21.7'N, 38˚48'E and 21˚26'N, 38˚54.7'E. Although the existence of these reefs has not been proven, vessels should exercise the appropriate caution in the general vicinity.

The beacons and buoys are frequently washed away and cannot be depended on.

Conspicuous wrecks lie on Shib Qahan and Shib Jiddah, about 0.5 mile SSW. Another conspicuous wreck lies on a reef about 2 miles SE of Shib Qahan. Caution should be exercised in identifying these wrecks, as some have been reported to resemble vessels at anchor.

Radar should be used with caution because of the difficulty in identifying targets. The large number of vessels in the anchorage obscured landmarks and confused the radar picture.

Vessels should give a good berth to all reefs in the vicinity of Jiddah.

6.30 Mismari Reef (21˚20'N., 39˚02'E.), which dries, is marked by a light. The sea is reported to break on the W edge of the reef occasionally.

Close N of the reef lies a detached shoal, with depths of 1.8 to 10.9m, which breaks in strong W winds.

A dangerous wreck is charted about 1 mile N of the light on the reef. A 3.6m patch, which seldom breaks, lies 0.3 mile ENE of Mismari Reef.